

What is claimed is:

1. A method for producing chitosan from chitin-containing material, comprising:  
reacting the chitin-containing material with a caustic at a pressure greater than 0  
PSIG.

5

2. The method according to claim 1, further comprising separating the chitosan  
from the reaction.

3. The method according to claim 1, wherein the pressure is greater than 5 psig.

10

4. The method according to claim 1, wherein the pressure is greater than 10 psig.

5. The method according to claim 1, wherein the temperature is greater than  
115°C.

15

6. The method according to claim 1, wherein the temperature is greater than  
125°C.

7. The method according to claim 1, wherein the reaction occurs for least 1 hour.

20

8. A chitosan composition produced by the method of claim 1.

9. A composition comprising fungal chitosan, wherein the chitosan has a  
deacetylation level of greater than 90% and a molecular weight greater than 130,000.

25

10. The composition according to claim 9, wherein the fungal chitosan has a purity greater than 85%.